



UNITED STATES PATENT AND TRADEMARK OFFICE

ml

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,751	09/03/2004	Katsuya Yamamoto	09792486-0154	6582
26263	7590	11/27/2006	EXAMINER	
SONNENSCHN NATH & ROSENTHAL LLP P.O. BOX 061080 WACKER DRIVE STATION, SEARS TOWER CHICAGO, IL 60606-1080			BALAOING, ARIEL A	
			ART UNIT	PAPER NUMBER
			2617	

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/506,751	YAMAMOTO, KATSUYA	
	Examiner	Art Unit	
	Ariel Balaoing	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 09/16/2003 have been fully considered but they are not persuasive.

Regarding the applicants arguments that "*Imatsuka* teaches that the "inquiry signal" is transmitted by the reader/writer 42 to the portable phone M to start communication with the portable telephone M. However, rather than temporarily stopping output of transmission data in the first radio communication with the partner on the call "in response to detecting the [inquiry] signal transmitted by the reader/writer to start the second radio communication with the reader/writer," *Imatsuka* discloses that the portable telephone M communicates an ID number to the automatic ticket gate 2 and, in turn the automatic ticket gate 2 communicates a station code and time code to the control circuit 20 of the portable telephone M **before** the control circuit ever interrupts the call or first radio communication with the other person. Thus, *Imatsuka* teaches that when an initial inquiry is received by the control circuit 20 from the reader/writer 42, the control circuit 20 does not interrupt but allows the call to the partner to continue while the control circuit 20 transmits data to the reader/writer and the reader/writer transmits data to the control circuit 20 of the portable phone."

The examiner agrees that a message informing the partner of the call is sent before inhibition to the call is made. However, independent claim 1 and 7 do not specify that temporarily stopping output of transmission data occurs immediately following the detection of a signal transmitted by the reader/writer. Therefore, even though a

Art Unit: 2617

message is sent upon detection of signals from an automatic ticket gate, the temporarily stopping of transmission data of *Imatsuka* is caused in response to detecting signals from an automatic ticket gate and thus meets the limitation as claimed.

2. In response to applicant's argument that interrupting of a call in *Imatsuka* is not to prevent interference from any communication between the telephone and the reader/writer (see page 9 and 10 of the remarks), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The examiner contends that interruption of a call would inherently inhibit causing of interference.

Furthermore, the limitation states *such that the second radio communication is inhibited from causing interference in the first radio communication.* Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. See MPEP 2106C, 2111.04.

3. Regarding claim 7, the applicant argues "*Imatsuka discloses a portable telephone M that has a single control unit 20 and a memory 21 storing one application accessed by the single control unit 20 when used as a "terminal equipment [or cellphone] with a station service system" and another application accessed by the same single control unit 20 for "short-distance radio function (Bluetooth)" communication with the reader/writer 42. Imatsuka fails to disclose or suggest limitation of claim 7.*" (see

Art Unit: 2617

page 10 and 11 of the remarks); the examiner respectfully disagrees. Claim 7 shows a **first radio communication processor; a second communication processor; a controller; and a buffer**. It is clear from the previous office action that a **first radio communication processor** is equated to cellular phone communication, a **second communication processor** is equated to Bluetooth communication, and a **controller** is equated to control unit 20. As disclosed, a first and second communication processor are for bidirectional communication. Therefore the cellular and Bluetooth transceivers can be seen as communication processors since in both systems would require different protocol conversions to occur (i.e. signal processing).

4. Regarding claim 3 and 9, in response to applicant's argument that the references fail to show certain features of applicant's invention (see page 11 of the remarks), it is noted that the features upon which applicant relies (i.e., "a control channel is left open") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, as acknowledged by the applicant, *Imatsuka* discloses "momentary interruption of the above-mentioned message is in the condition that the message function is suspended in the condition" as "connected [to] the circuit" and "resuming the message by which interruption was carried out". It is conventional in the art to keep a control channel open when a call from a mobile device is placed temporarily on hold.

5. Applicant's arguments with respect to claims 4 and 10 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2617

6. Regarding claim 13 and 14, the applicant argues "Chintada discloses a wireless remote unit that includes a software-hierarchy communication model having a data-link layer (DLL) and a medium access control (MAC) layer that sends a control message ("BLOCK_IND") to the DLL when the wireless remote unit is in a "congested state" so that the DDL transitions to a BLOCKED state so that the DLL will then "suspend the transmission of frames to the MAC layer." Thus, Applicant submits that CHINTADA does not teach forcing the DLL into the "BLOCKED state" but requests that the DDL transition to the "BLOCKED state" in response to a control message in accordance with the normal disclosed data congestion operation for the wireless remote unit." (see page 14 of the remarks). Although Chintada states that a request is made to place the DLL into an other state, it is clear that the DLL is changed to a BLOCKED state during congestion. Therefore the DLL is forced to change its state when this condition arises.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 3, 5, 7, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over IMATSUKA (JP 2002095051) in view of SEPPANEN (US 6,330,442).

Regarding claims 1, IMATSUKA discloses a radio communication method in a phone having a first part operatively configured to effect a first bidirectional radio communication [cellular phone function] with a predetermined station and a second part operatively configured to effect a second bidirectional radio communication [short range

Art Unit: 2617

radio communication function] with a reader/writer when the phone is positioned adjacent to the reader writer, (42-Figure 5) (abstract; paragraph 13), the method comprising: detecting, via the second part of the phone, as signal transmitted by the reader/writer to start the second radio communication with the reader/writer (paragraph 7-10; a short-distance radio communication function is initiated when the portable telephone is positioned in proximity of the ticket gate); and in response to detecting the signal transmitted by the reader/writer to start the second radio communication with said reader/writer (paragraph 2, 7-10; Bluetooth communication is initiated), temporarily stopping output of transmission data in the first radio communication with said predetermined station (paragraph 7-10; paragraphs 39-53; the call in progress is temporarily interrupted in order to perform gate processing. As pointed out by the applicant, the station and time codes are sent to the partner of the call before the interruption occurs), such that the temporary stop is such that the second radio communication is inhibited from causing interference in the first radio communication (paragraph 7-10; it has been well established in the art that inhibiting a wireless communication connection between one of two devices in close proximity to each other will inhibit interference to the active connection); wherein the step of temporarily stopping output of transmission data comprises stopping via a controller associated with the second part of the phone, the inputting of transmission data (paragraphs 6, 11-39, 62, and 63; phone call is interrupted when short range transmission is detected).

However IMATSUKA does not disclose wherein the data is stored in a buffer.

SEPPANEN discloses wherein transmission data is stored in a buffer (column 14:lines

Art Unit: 2617

37-48). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify IMATSUKA to include a storage buffer for transmission data as taught by SEPPANEN as both systems disclose signal transmissions from a portable device. This is beneficial in that it allows the mobile device to control the transmission rate of outgoing data. Furthermore it is well known in the art to buffer wireless communications before sending transmissions.

Regarding claim 3, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. IMATSUKA further discloses transmitting packets having control data associated with said first bidirectional radio communication even when no data is stored in said buffer (paragraphs 6, 11-39, 62, and 63; call is placed on hold, hence no data is stored and a control channel is left open between the portable device and the called party).

Regarding claim 5, see the rejections of the parent claim concerning the subject matter this claim is dependant upon. IMATSUKA further discloses further comprising: detecting, via the second part of the phone, the completion of said second radio communication (paragraphs 7-14, 60-69); and when completion of said second radio communication is detected, permitting the outputting of the transmission data is released (paragraphs 60-69):

Regarding claim 7, IMATSUKA further discloses a radio communication unit comprising: a first radio communication processor operatively configured to generate a first bidirectional radio communication [cellular phone function] with a predetermined station (paragraphs 11-39, 39-53), a second radio communication processor operatively

Art Unit: 2617

configured to generate a second bidirectional radio communication [short range radio communication function; SF card] with an adjacent reader/writer (42-Figure 5) (abstract; paragraph 2, 11-39), and a controller operatively configured to detect a signal transmitted by the reader/writer for starting the second radio communication with the reader/writer and to temporarily stop output of transmission data in said first radio communication processor (paragraphs 11-39, 39-53), such that the second radio communication is inhibited from causing interference in the first radio communication (paragraph 7-10; it has been well established in the art that inhibiting a wireless communication connection between one of two devices in close proximity to each other will inhibit interference to the active connection); wherein the controller stops the output of transmission data by temporarily inhibiting the input of the transmission data (paragraphs 6, 11-39, 62, and 63; phone call is interrupted when short range transmission is detected). However IMATSUKA does not expressly disclose wherein a buffer is used to temporarily store the transmission data for output. SEPPANEN discloses wherein a buffer is used to temporarily store the transmission data for output. (column 14:lines 37-48). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify IMATSUKA to include a storage buffer for transmission data as taught by SEPPANEN as both systems disclose signal transmissions from a portable device. This is beneficial in that it allows the mobile device to control the transmission rate of outgoing data. Furthermore it is well known in the art to buffer wireless communications before sending transmissions.

Art Unit: 2617

Regarding claim 9, see the rejections of the parent claim concerning the subject matter this claim is dependant upon. IMATSUKA further discloses wherein the controller stops the output of transmission data while permitting the transmission of packets having control data associated with said first bidirectional radio communication, even when no data is stored (paragraphs 6, 11-39, 62, and 63; call is placed on hold, hence no data is stored and a control channel is left open between the portable device and the called party).

Regarding claim 11, see the rejections of the parent claim concerning the subject matter this claim is dependant upon. IMATSUKA further discloses wherein said controller is operatively configured to detect the completion of said second radio communication and to release the processing to temporarily stop outputting the transmission data in said first radio communication processor, when completion of the radio communication in said second radio communication processor is detected (paragraphs 11-39, 38-53).

3. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over IMATSUKA (JP 2002095051) in view of and SEPPANEN (US 6,330,442 B1), and in further view of and AMRANY et al (US 6,711,207 B1).

Regarding claim 4, IMATSUKA further discloses wherein the step of temporarily stopping output of transmission data further comprises transmitting packets having control data associated with said first bidirectional radio communication even when no data is stored (paragraphs 6, 11-39, 62, and 63; call is placed on hold, hence no data is stored and a control channel is left open). However IMATSUKA does not expressly

Art Unit: 2617

disclose wherein the data is stored in a buffer. SEPPANEN discloses wherein transmission data is stored in a buffer (column 14:lines 37-48). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify IMATSUKA to include a storage buffer for transmission data as taught by SEPPANEN as both systems disclose signal transmissions from a portable device. This is beneficial in that it allows the mobile device to control the transmission rate of outgoing data. However, the combination of IMATSUKA and SEPPANEN do not disclose wherein the packets transmitted when no data is stored in said buffer are transmitted at the lowest transmission rate. AMRANY discloses wherein the packets transmitted when no data is stored in said buffer are transmitted at the lowest transmission rate (abstract). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of IMATSUKA and SEPPANEN to transmit packets at the lowest rate when no data is being sent as taught by AMRANY since this would allow the preservation of battery power by using lowered transmission power when there is no data present.

Regarding claim 10, see the rejections of the parent claim concerning the subject matter this claim is dependant upon. IMATSUKA further discloses wherein the controller stops the output of transmission data by temporarily inhibiting the input of the transmission data while permitting the transmission of packets having control data associated with said first bidirectional radio communication, even when no data is stored (paragraphs 6, 11-39, 62, and 63; call is placed on hold, hence no data is stored and a transmission channel is left open). However IMATSUKA does not disclose

Art Unit: 2617

wherein the data is stored in a buffer. SEPPANEN discloses wherein transmission data is stored in a buffer (column 14:lines 37-48). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify IMATSUKA to include a storage buffer for transmission data as taught by SEPPANEN as both systems disclose signal transmissions from a portable device. This is beneficial in that it allows the mobile device to control the transmission rate of outgoing data. However, the combination of IMATSUKA and SEPPANEN do not disclose wherein the packets transmitted in said state of - having no data are transmitted at the lowest transmission rate. AMRANY discloses wherein the packets transmitted in said state of - having no data are transmitted at the lowest transmission rate (abstract). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of IMATSUKA and SEPPANEN to transmit packets at the lowest rate when no data is being sent as taught by AMRANY since this would allow the preservation of battery power by using lowered transmission power when there is no data present.

4. Claims 6 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over IMATSUKA (JP 2002095051) in view of SEPPANEN (US 6,330,442 B1), further in view of VEGA et al (US 6,282,407 B1).

Regarding claims 6 and 12, see the rejections of the parent claims concerning the subject matter these claims are dependant upon. However the combination of IMATSUKA in view of SEPPANEN does not disclose wherein the signal transmitted by the reader/writer to start the second radio communication is an electric power wave, and

Art Unit: 2617

said second radio communication operates under power obtained by receiving electric power wave supplied from said reader/writer. VEGA discloses wherein the signal transmitted by the reader/writer to start the second radio communication is an electric power wave, and said second radio communication operates under power obtained by receiving electric power wave supplied from said reader/writer (column 2:lines 27-40).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify IMATSUKA in view of SEPPANEN to include a passive powering means as taught by VEGA since both systems relate to using a short ranged interrogation/response communication system. This is beneficial in that no power is needed to operate the secondary transmission system when in range of the interrogator.

5. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over IMATSUKA (JP 2002095051) in view of SEPPANEN (US 6,330,442 B1), further in view of CHINTADA et al (US 2002/0118639)

Regarding claim 13, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of IMATSUKA and SEPPANEN does not expressly disclose wherein the first part of the phone includes a software-hierarchy communication model having a data-link layer operatively configured to manage transmission data congestion when in a first mode and the step of temporarily stopping output of transmission data further comprises temporarily forcing the data-link layer into the first mode. CHINTADA discloses wherein a first part of a device includes a software-hierarchy communication model having a data-link layer

operatively configured to manage transmission data congestion when in a first mode and the step of temporarily stopping output of transmission data further comprises temporarily forcing the data-link layer into the first mode (abstract; paragraph 12).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of IMATSUKA and SEPPANEN to include a software communication model having a data-link layer to manage transmission data, as taught by CHINTADA, as the data link layer is a well known standard used in managing transmission protocols of data communication.

Regarding claim 14, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of IMATSUKA and SEPPANEN does not expressly disclose further comprising a software-hierarchy communication model run by the radio communication processor, the communication model having a data-link layer operatively configured to manage transmission data congestion when in a first mode, wherein the step of temporarily stopping output of transmission data further comprises temporarily forcing the data-link layer into the first mode (abstract; paragraph 12). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of IMATSUKA and SEPPANEN to include a software communication model having a data-link layer to manage transmission data, as taught by CHINTADA, as the data link layer is a well known standard used in managing transmission protocols of data communication.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ariel Balaoing whose telephone number is (571) 272-7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ariel Balaoing – Art Unit 2617

AB 11/19/06

AB



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600